

Recipients of Grants

Following is a list of all recipients of grants approved by the Scientific Advisory Board since initial grants were made in late 1954. It should be noted that some of the projects have been completed.

GRANTEE AND INSTITUTION	PROJECT TITLE
	<i>("C" indicates project completed; "P" indicates a report on work has been published)</i>
CLARENCE M. AGRESS, M.D., <i>Chief, Cardiovascular Laboratory, Veterans Administration Center, Los Angeles 25, California</i>	The Measurement of the Functional Status of the Human Heart by Frequency Spectrum Analysis of its Vibrational Energy
D. MURRAY ANGEVINE, M.D., <i>Professor of Pathology, University of Wisconsin Medical School, Madison, Wisconsin</i>	Pathologic — Anatomic Study of Cellular Changes in Human Bronchi (C)
FREDERICK W. BARNES, JR., M.D., PH.D., <i>Associate Professor of Medicine and Physiological Chemistry, Johns Hopkins University School of Medicine, Baltimore 5, Maryland</i>	The Role of Hyperplasia in Tissue Response to Chronic Damage (C—P)
SAMUEL BELLET, M.D., <i>Director, Division of Cardiology, Philadelphia General Hospital, Philadelphia, Pennsylvania</i>	The Effect of Nicotine on Cardiac Irritability in the Presence of Reserpine, and the Effect of Nicotine on Coronary Blood Flow of Dogs with Coronary Insufficiency (P)
RICHARD J. BING, M.D., <i>Professor of Medicine and Chairman, Department of Medicine, Wayne State University College of Medicine, Detroit, Michigan</i>	The Effect of Smoking on the Coronary Blood Flow and Certain Phases of Myocardial Metabolism in Patients with Arteriosclerotic or Hypertensive Cardiovascular Disease (P) Studies in Cellular Physiology of Heart Muscle Measurement of Coronary Blood Flow by Means of Radioactivated Albumin
FRED G. BOCK, M.S., PH.D., <i>Senior Cancer Research Scientist, Health Research Inc., Roswell Park Division, Buffalo, New York (see Moore)</i>	Investigation of the Biological Effects of Cigarette Smoke (C—P)
JAMES F. BONNER, PH.D., <i>Professor of Biology, California Institute of Technology, Pasadena, California</i>	Enzymatic Study of Methylation Reactions in Plant Tissue (C—P)
TOM G. BOWERY, PH.D., <i>Pesticide Residue Laboratory, Chemistry Department, North Carolina State College, Raleigh, North Carolina</i>	TDE and Endrin Residues in Cigarette Smoke (P)

GRANTEE AND INSTITUTION

JOSEF M. BROZEK, Ph.D., *Professor, Laboratory of Physiological Hygiene, University of Minnesota School of Public Health, Minneapolis, Minnesota (now Professor and Chairman, Department of Psychology, Lehigh University, Bethlehem, Pennsylvania)*

E. M. BUTT, M.D., *Professor of Pathology, University of Southern California School of Medicine; Chief Pathologist, Los Angeles County Hospital, Los Angeles 33, California*

RICHARD U. BYERRUM, Ph.D., *Professor of Chemistry, Michigan State University, East Lansing, Michigan*

WILLIAM H. CARNES, M.D., *Professor of Pathology, University of Utah College of Medicine, Salt Lake City, Utah*

LEOPOLD CERECEDO, Ph.D., *Professor of Biochemistry, Fordham University, New York 58, N. Y. (now Professor of Biochemistry and Nutrition, University of Puerto Rico, San Juan, Puerto Rico)*

HANS T. CLARKE, D.Sc., *Professor of Biochemistry, Columbia University College of Physicians and Surgeons, New York, N. Y. (see Gottschall)*

JULIUS H. COMROE JR., M.D., *Director, Cardiovascular Research Institute, University of California Medical School, San Francisco 22, California*

DEAN M. CONNORS, M.D., *Associate Director, Department of Laboratory Medicine, St. Mary's Hospital, Madison 5, Wisconsin*

PHILIP COOPER, M.D., *Chief, Surgical Service, Veterans Administration Hospital, Bronx, New York; Clinical Professor of Surgery, Albert Einstein Medical College, Bronx*

R. F. DAWSON, Ph.D., *Professor of Botany, Columbia University, New York, N. Y.*

EDWARD F. DOMINO, M.D., *Assistant Professor of Pharmacology, University of Michigan, Ann Arbor, Michigan*

PROJECT TITLE

Biological Characteristics of Men and Their Smoking Habits (C—P)

Study of Trace Metal Storage of Pulmonary and Liver Tissue by Spectrographic and Chemical Methods (C)
Pathologic — Anatomic Study of Cellular Changes in Human Bronchi (C)

Biosynthesis of the Pyridine Ring of Nicotine

Pathologic — Anatomic Study of Cellular Changes in Human Bronchi (C)

A Study of Early Chemical Changes in the Lungs of Tumor-Bearing Rats and Mice (C—P)

Proteolytic Activities of the White Blood Cells of Men and the Effect of White Blood Cell Activities of Carcinogens, Nutrition and Other Influences (C)

The Effect of Smoking Upon Airway Resistance

A Study of the Alterations in the Human Bronchial Wall Occurring with Ageing, with Particular Emphasis on Elastic Tissue Changes and Associated Changes in the Bronchial Lumen Size

A Study of the Effects of Cigarette Smoking on Levels of Gastric Acid, Pepsin and Uropepsin (C—P)

A Study of the Effect of Extracts of Tobacco on Cultures of Tumor and Normal Cells, Animal Transplants of Tumor Tissue from Tissue Cultures

An Investigation of the Metabolism of Pyridine Compounds in the Tobacco Plant

Effects of Tobacco Smoke and Nicotine on the Central Nervous System

GRANTEE AND INSTITUTION

JOHN W. ECKSTEIN, M.D., *Assistant Professor of Internal Medicine*, College of Medicine, State University of Iowa, Iowa City, Iowa

HANS L. FALK, Ph.D., *Assistant Professor of Biochemistry*, University of Southern California School of Medicine, Los Angeles 33, California

DANA L. FARNSWORTH, M.D., *Henry K. Oliver Professor of Hygiene and Director of University Health Services*, Harvard University, Cambridge 38, Massachusetts (see Heath and McArthur)

FRANK C. FERGUSON, JR., M.D., *Chairman, Department of Pharmacology*, Albany Medical College, Albany 8, New York

RUSSELL S. FISHER, M.D., *Chief Medical Examiner*, State of Maryland; *Professor of Legal Medicine*, University of Maryland Medical School, Baltimore, Maryland

B. L. FREEDLANDER, M.D., *Director of Cancer Research*, Mt. Zion Hospital, San Francisco 15, California (see French)

FREDERICK A. FRENCH, *Research Associate*, Mt. Zion Hospital and Medical Center, San Francisco, California (see Freedlander)

JACK FREUND, M.D., *Lecturer in Pharmacology*, *Assistant in Medicine*, Medical College of Virginia, Richmond 19, Virginia

PROJECT TITLE

Responses of the Peripheral Veins in Man to the Intravenous Administration of Nicotine (P)

Foot Blood Flow Responses to Smoking in the Presence of Hyperlipemia and Hypertension

Examination of Cigarette Paper and Cigarette Smoke Condensates for Aromatic Polycyclic Hydrocarbons (C)

A Compilation of Fluorescence Spectra of Polycyclic Aromatic Hydrocarbons and Closely Related Compounds Which Are of Interest in the Study of Air Pollutants, and Cigarette Smoke in Relation to Lung Cancer Etiology

Personality and Smoking in College Graduates: A Fifteen-Year Follow-up Study. (C)

Effects of Tobacco Smoke Upon the Function of the Cardiovascular System in Animals and Man

Pathologic — Anatomic Study of Cellular Changes in Human Bronchi (C)

Experiments on the Carcinogenic and Cocarcinogenic Action of Tobacco Products (P)

Carcinogenicity, Cocarcinogenicity and Anti-carcinogenicity of Dietary Factors in Relation to Pulmonary Tumors. Possible Interrelationship of Tobacco Bases and Dietary Factors. Chemical Studies on Pyridine Bases Including Niacin Analogs

Correlation of Multitechnical Procedures Performed on the Peripheral Circulation of Normal Individuals in Recumbent and Erect Positions and After Exercise Before and After Sham and Actual Smoking

A Study of the Effects of Cigarette Smoking on the Peripheral Circulation of Individuals with Arteriosclerosis Obliterans and other Peripheral Vascular Diseases, Utilizing Multi-technical Procedures

GRANTEE AND INSTITUTION

GEORGE O. GEY, M.D., *Director, Finney-Howell Cancer Research Laboratory, Department of Surgery, Johns Hopkins Hospital, Baltimore, Maryland*

GERTRUDE Y. GOTTSCHALL, Ph.D., *Assistant Professor of Biochemistry, Department of Pathology and Microbiology, The Rockefeller Institute for Medical Research, New York 21, N.Y. (see Clarke)*

A. CLARK GRIFFIN, Ph.D., *Head of Biochemistry Department, M.D. Anderson Hospital and Tumor Institute, University of Texas Medical Center, Houston 25, Texas*

MORTON I. GROSSMAN, Ph.D., M.D., *Associate Clinical Professor of Medicine, University of California Medical Center, Los Angeles 24, California*

CARL C. GRUHZIT, Ph.D., M.D., *Associate in Physiology and Pharmacology, University of Pennsylvania Graduate School of Medicine, Philadelphia 4, Pennsylvania (now Lecturer in Physiology, University of Hong Kong)*

H. B. HAAG, M.D., *Professor of Pharmacology, Medical College of Virginia, Richmond 19, Virginia*

JOSEPH H. HAFKENSCHIEL, M.D., *Director, Cardiopulmonary Unit, Lankenau Hospital, Philadelphia 31, Pennsylvania*

RICHARD J. HAVEL, M.D., *Assistant Professor of Medicine, University of California Medical School, San Francisco, California*

HERBERT R. HAWTHORNE, M.D., *Chairman, Department of Surgery, University of Pennsylvania Graduate School of Medicine, Philadelphia 4, Pennsylvania*

CLARK W. HEATH, M.D., *Physician, Department of Hygiene, Harvard University, Cambridge 38, Massachusetts (see Farnsworth and McArthur)*

PROJECT TITLE

Fellowships for Studying the Culture of Human Lung Tissue and the Effects of Known and Possible Carcinogenic Agents Upon Such Tissue

Proteolytic Activities of the White Blood Cells of Man and the Effect on White Blood Cell Activities of Carcinogens, Nutrition and Other Influences

The Effect of Exposure to Cigarette Smoke on the Induction of Cancer by Chemical Compounds (C-P)

The Effect of Smoking on Certain Gastric Functions

Pharmacologic Study of Nicotine and Related Alkaloids (C)

Preparation for Publication of a Book on the Biologic Aspects of Tobacco and its Smoke (P)

Measurement of Coronary Blood Flow, Cardiac Work and Cardiac Oxygen and Carbohydrate Metabolism in Normotensive Subjects Before and After Intravenous Nicotine and After Smoking Standard Cigarettes (C-P)

A Study of the Effects of Smoking and Nicotine Administration on Sympathoadrenal Function and Fatty Acid Metabolism

Attempts to Induce Pulmonary Neoplasms in Experimental Animals by Exposure of the Tracheo-Bronchial System to Tobacco Smoke (C)

Personality and Smoking in College Graduates: A Fifteen-Year Follow-Up Study (C-P)

GRANTEE AND INSTITUTION

✓ PAULINE HEIZER, Ph.D., *Research Associate in Cytology and Cytochemistry*, San Francisco Institute of Medical Sciences, San Francisco 15, California (see Richards)

RUSSELL L. HOLMAN, M.D., *Professor and Head, Department of Pathology*, Louisiana State University School of Medicine, New Orleans 12, Louisiana

F. HOMBURGER, M.D., *President*, Bio-Research Laboratories, Inc., Cambridge, Massachusetts

JERRY HART JACOBSON, M.D., *Director of Electrophysiology*, New York Eye and Ear Infirmary, New York 3, N. Y.

✓ ANDREW A. KANDUTSCH, Ph.D., *Staff Scientist*, Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine

ANCEL KEYS, Ph.D., *Professor of Physiological Hygiene and Director, Laboratory of Physiological Hygiene*, University of Minnesota School of Public Health, Minneapolis 4, Minnesota

✓ JOSEPH B. KIRSNER, M.D., *Professor of Medicine*, University of Chicago School of Medicine, Chicago, Illinois

KENNETH P. KNUDTSON, M.D., *Assistant Chief, Laboratory Service*, Veterans Administration Hospital, Seattle, Washington; *Professor of Pathology*, University of Washington Medical School, Seattle, Washington

ALVIN I. KOSAK, Ph.D., *Associate Professor of Chemistry*, Washington Square College, New York University, New York 16, N. Y.

MARVIN KUSCHNER, M.D., *Professor of Pathology*, New York University College of Medicine; *Director of Pathology*, Bellevue Hospital, New York 16, N. Y.

THOMAS C. LAIPPLY, M.D., *Associate Professor of Pathology*, Northwestern University Medical School, Chicago, Illinois

PROJECT TITLE

A Comparative Study of Early Histological and DNA Changes in the Epidermis of Two Strains of Mice (C57 Blacks and Swiss Websters) After Daily Applications of Whole Cigarette Smoke Condensate (Alone and Combined with Croton Oil) and the Carcinogens 20-Methylcholanthrene and 3,4-Benzpyrene

Pathologic — Anatomic Study of Cellular Changes in Human Bronchi (C)
The Influence of Tobacco Smoking on Acute Myocardial Infarction

Studies on Carcinogenesis and the Bioassay of Carcinogenic Agents (P)
Comparative Studies of Effects of Various Tobacco Smoke Condensates on Skins of Mice

A Comparison of Electoretinography as a Means of Evaluating the Effect of Vasoconstrictor Drugs Upon Cerebral and Retinal Circulation With Other Techniques for This Determination (C)

To Determine to What Extent Tobacco Tar Mimics the Action of Carcinogenic Hydrocarbons in the Skin and Other Tissues

Characteristics of Men, Including Smoking, in Populations Differing in the Incidence of Coronary Heart Disease (C—P)

The Effect of Tobacco Smoking Upon Basal Gastric Secretions in Man

Pathologic-Anatomic Study of Cellular Changes in Human Bronchi (C)

The Isolation and Identification of Certain Lower-Boiling Components of Cigarette Smoke (C)

Pathologic-Anatomic Study of Cellular Changes in Human Bronchi (C)

Pathologic-Anatomic Study of Cellular Changes in Human Bronchi (C)

GRANTEE AND INSTITUTION

PAUL S. LARSON, PH.D., *Professor of Pharmacology*, Medical College of Virginia, Richmond 19, Virginia

CECILIE LEUCHTENBERGER, PH.D., *Senior Biologist and Cytochemist*, Children's Cancer Research Foundation, Boston, Massachusetts

ROBERT H. LINNELL, PH.D., *Associate Professor of Chemistry*, University of Vermont, Burlington, Vermont

DAVID E. MANN, JR., PH.D., *Associate Professor of Pharmacology*, Temple University School of Pharmacy, Philadelphia 40, Pennsylvania

CHARLES C. McARTHUR, PH.D., *Psychologist to the University Health Services*, Harvard University, Cambridge 38, Massachusetts (see Farnsworth and Heath)

CHARLES B. McCANTS, PH.D., *Associate Professor of Soils*, School of Agriculture, North Carolina State College, Raleigh, North Carolina

KELLY T. McKEE, M.D., *Associate Professor of Medicine*, Medical College of South Carolina, Charleston, South Carolina

JAMES G. MILLER, M.D., PH.D., *Professor of Psychiatry and Psychology, and Director*, Mental Health Research Institute, University of Michigan, Ann Arbor, Michigan

HUGH MONTGOMERY, M.D., *Associate Professor of Medicine*, University of Pennsylvania Medical School, Philadelphia 4, Pennsylvania

GEORGE E. MOORE, PH.D., M.D., *Director*, Roswell Park Memorial Institute, Buffalo 3, New York (see Bock)

HURLEY LEE MOTLEY, M.D., *Professor of Medicine and Director, Cardio-Respiratory Laboratory*, University of Southern California School of Medicine, Los Angeles 17, California

PROJECT TITLE

Enzymatic Transformations of Nicotine and Related Compounds (P)

A Correlated Histological, Cytological and Cytochemical Study of the Tracheo-Bronchial Tree from Mice Exposed to Cigarette Smoke (P)

The Oxidation of Nicotine by Gaseous Oxygen: Mechanism, Products and Kinetics

Effect of Tobacco Smoke and Tobacco Residues on Methylcholanthrene-Induced Skin Carcinogenesis in Mice (C)

Social and Personal Determinants of Smoking Behavior (C-P)

Arsenic Content of Soils and Absorption by the Tobacco Plant

Study of Lung Function in Smokers and Non-Smokers (C-P)

The Behavioral Effects of Smoking Under Stress

Influence of Tobacco Smoking on the Blood Flow of Skin and of Muscles of Extremities in Sympathectomized and Unsympathectomized Subjects (C)

Influence of Nicotine (i.v.) and Tobacco Smoking on Blood Flow in Human Skin and Skeletal Muscle

An Investigation of the Physiological Effects of Direct Inhalation of Tobacco Smoke by Laboratory Animals and the Study of the Biological Response of Laboratory Animals to Continuous Ingestion of Diet-Tobacco Product Mixtures (C)

A Study of the Effects of Smoking on Pulmonary Function (C-P)

GRANTEE AND INSTITUTION

WILLIAM S. MURRAY, Sc.D., *Research Associate and Administration Director*, Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine

DONALD M. PACE, Ph.D., *Professor of Physiology and Director, Institute for Cellular Research*, University of Nebraska, Lincoln, Nebraska

EDWARD W. PELIKAN, M.D., *Associate Professor of Pharmacology and Experimental Therapeutics*, Boston University School of Medicine, Boston, Massachusetts

C. M. POMERAT, Ph.D., *Professor of Cytology*, University of Texas Medical Branch, Galveston, Texas

H. R. PRATT-THOMAS, M.D., *Professor of Pathology*, Medical College of South Carolina, Charleston, South Carolina

VICTOR RICHARDS, M.D., *Professor of Surgery, Executive Head, Department of Surgery*, Stanford University School of Medicine, San Francisco 15, California (see Heizer)

R. H. RIGDON, M.D., *Professor of Pathology and Director, Laboratory of Experimental Pathology*, University of Texas Medical Branch, Galveston, Texas

SYDNEY C. RITTENBERG, Ph.D., *Professor of Bacteriology*, University of Southern California, Los Angeles 7, California

BENJAMIN A. RUBIN, Ph.D., *Assistant Professor of Public Health and Preventive Medicine*, Baylor University College of Medicine, Houston, Texas

PROJECT TITLE

The Production of Genetically Controlled Animals and Tumors for Use in Experimental Research on Tobacco in Relation to Health by (a) the Expansion of Known Inbred Stocks and Sources of Tumor Supply; (b) the Production of Such Hybrids or Heterozygous Types as Become Necessary; and (c) the Relation of this Material to Specific Experimental Work at the Laboratory (C)

Fellowships for Training in Tissue Culture Techniques

Study of the Effects of Tobacco Smoke Constituents on Various Strains of Tissue Cells Cultivated *In Vitro*

A Study of Structure-Activity Relationships Among Drugs Which Affect Nicotine-Sensitive Physiological Mechanisms

Fellowships for Studying the Culture of Human Lung Tissue and the Effects of Known and Possible Carcinogenic Agents Upon Such Tissue

Application of a New Bio-Assay Technique in Examination of Cigarette Smoke Condensates for Possible Carcinogens (C—P)

Pathologic-Anatomic Study of Cellular Changes in Human Bronchi (C)

A Comparative Study of the Effects of Whole and Fractional Extracts of Cigarette Smoke and Those of Known Carcinogens on (1) The Cytology and Nuclear DNA Content of Epidermis in Various Strains of Mice and/or (2) The Cytology and Nuclear DNA Content of Lung and Epithelium of the Bronchial Tree of Mice and Hamsters (C)

Effects of Tobacco Smoke Condensate on the Respiratory Tract and Other Tissues of the Duck (P)

The Bacterial Degradation of Nicotine and Related Compounds. The Objective of the Project is the Elucidation of the Intermediary Metabolism of Nicotine Oxidation (P)

An Evaluation of the Phenomenon of Tumor Growth Enhancement as an Assay for Carcinogens Among the Polycyclic Hydrocarbons and Related Compounds

GRANTEE AND INSTITUTION

PROJECT TITLE

WILLIAM O. RUSSELL, M.D., *Pathologist-in-chief*, M.D. Anderson Hospital and Tumor Institute, University of Texas Medical Center, Houston 25, Texas

Pathologic-Anatomic Study of Cellular Changes in Human Bronchi (C)

PAUL D. SALTMAN, Ph.D., *Assistant Professor of Biochemistry*, University of Southern California School of Medicine, Los Angeles 7, California

The Enzymatic Mechanism for the Dark Fixation of CO₂ by Tobacco (C-P)
Some Aspects of Amino Acid Metabolism in Tobacco Leaves

ALVIN R. SCHMIDT, Ph.D., *Director of Counseling*, Tufts University, Medford, Massachusetts

Study of Attitudes Toward, as Well as Extent, Type and History of, Tobacco Smoking in a Young College Population. Study of Some of the Relationships of Smoking and Nonsmoking to Family History, Type of Secondary Schooling, Academic Interests, Academic Achievement, and Social Relationships Characteristics

ISAAC SCHOUR, D.D.S., Ph.D., D.Sc., *Professor of Histology and Embryology and Dean*, University of Illinois College of Dentistry, Chicago 12, Illinois

Histologic Changes in the Oral, Pharyngeal and Nasal Tissues of Experimental Animals Subjected to Tobacco Smoke (C-P)

MAURICE S. SEGAL, M.D., *Clinical Professor of Medicine*, Tufts University School of Medicine, Boston, Massachusetts; *Director, Department of Inhalation Therapy*, Boston City Hospital, Boston, Massachusetts

Effects of Cigarette Smoking on Lung Function in Normal Subjects and Patients With Certain Respiratory Disease Conditions (C-P)
Relationship of Cigarette Smoking to Chronic (Obstructive) Pulmonary Emphysema

CARL C. SELTZER, Ph.D., *Research Fellow in Physical Anthropology*, Harvard University, Cambridge, Massachusetts

Morphology and Smoking in College Graduates: A Fifteen-Year Follow-Up Study

CHARLES E. SHERWOOD, M.D., *Assistant Professor of Radiology*, University of Rochester School of Medicine and Dentistry, Rochester, New York

Investigation Into the Natural History of Carcinoma of the Lung With Particular Reference to the Radiographic Appearance of Such Processes, the Earliest Manifestation of Cancer on Chest X-Ray Photographs and the Tabulation of the Relationship of Smoking Habits and Occupation With the Incidence of Lung Cancer (C-P)

DAVID L. SIMON, M.D., *Instructor in Medicine and Fellow in Cardiovascular Research*, University of Cincinnati College of Medicine and Cardiac Laboratory, Cincinnati General Hospital, Cincinnati 29, Ohio

The Effects of Chewing Tobacco on the Cardiovascular System of Man (C-P)
The Effects of Pipe Smoking and Cigar Smoking on the Cardiovascular System of Man

T. M. SONNEBORN, Ph.D., *Distinguished Service Professor of Zoology*, Indiana University, Bloomington, Indiana

Checking and Extending the Stephano *Paramecium* Test for Carcinogenicity

GRANTEE AND INSTITUTION

SAM SOROF, PH.D., *Research Associate*,
The Institute for Cancer Research and
Lankenau Hospital Research Institute,
Philadelphia 11, Pennsylvania

FREDERICK J. STARE, PH.D., *Professor of Nutrition*, Harvard School of
Public Health, Boston 15, Massachusetts

MARION B. SULZBERGER, M.D., *Professor and Chairman, Department of Dermatology and Syphilology*, New
York University-Bellevue Medical Center,
New York 16, New York

CAROLINE BEDELL THOMAS, M.D.,
Associate Professor of Medicine, Johns
Hopkins University School of Medicine,
Baltimore 5, Maryland

TISSUE CULTURE ASSOCIATION
(*President*, Dr. Margaret R. Murray,
Associate Professor of Anatomy, Columbia University College of Physicians and Surgeons, New York, N.Y.)

JANET TRAVELL, M.D., *Associate Professor of Clinical Pharmacology*, Cornell University Medical College, New
York 21, New York

E. D. WARNER, M.D., *Professor of Pathology*, State University of Iowa College of Medicine, Iowa City, Iowa

RICHARD L. WECHSLER, M.D., *Clinical Physiologist*, Montefiore Hospital
Institute of Research, Pittsburgh 13, Pennsylvania

RUSSELL W. WELLER, M.D., *Pathologist*, Memorial Hospital of Chester County, West Chester, Pennsylvania;
Associate Professor of Pathology, Hahnemann Medical College, Philadelphia 2, Pennsylvania

PROJECT TITLE

Chemical and Physical Studies of the
Tissue Proteins Involved in Chemical
Carcinogenesis (C—P)

Experimental Studies of Cancer Utilizing
a New Technique to See if Various
'Tars' Extracted From Tobacco May
Incite the Formation of Lung Tumors
(C)

Investigation of the Effects of Tobacco
on the Human Vascular System, Based
on the Fact that Certain Tobacco Effects
are Due to Allergic Susceptibility
of Specific Individuals Rather than to
Obligatorily Toxic Products in Tobacco
Smoke, and that Patients with Occlusive
Vascular Diseases Respond Differently
than Healthy Smokers (P)

The Significance of Different Individual
Patterns of Circulatory Response to
Cigarette Smoking (P)

Studies of Genetic Differences Between
Smokers and Nonsmokers (P). Studies
of Psychological Differences Between
Smokers and Nonsmokers as Shown by
Comparison of Figure Drawings

To Assist in Establishment of Summer
Training Course in Tissue Culture
Techniques at University of Colorado
Medical School, Denver, Colorado (C)

Effects of Nicotine in the Rabbit with Experimental Coronary Atherosclerosis

Pathologic-Anatomic Study of Cellular
Changes in Human Bronchi (C)

Correlation of Bronchial Epithelial
Changes with Comparable Changes in
Other Organs—A Pathologic-Anatomic
Study

Effect of Cigarette Smoking on Cerebral
Blood Flow, Cerebral Metabolism,
Blood Gases, Blood pH, Arterial Pulse
Pressure Curves, Electrocardiograms,
and Electroencephalograms (C)

Pathologic-Anatomic Study of Cellular
Changes in Human Bronchi
A Selected, Extended and Detailed Study
of Human Bronchial Mucosa

GRANTEE AND INSTITUTION

PROJECT TITLE

SIMON H. WENDER, PH.D., *Research Professor of Chemistry*, University of Oklahoma Research Institute, Norman, Oklahoma

A Qualitative and Quantitative Study of the Individual Polyphenol Content of Cigarette Tobacco and of the Smoke and 'Tars' Resulting from Cigarette Smoking, and Also Study of the Fate of These Compounds in the Animal Respiratory System (C—P)

DUANE G. WENZEL, PH.D., *Professor of Pharmacology*, School of Pharmacy, University of Kansas, Lawrence, Kansas

The Determination of the Chronic Effects of Orally Administered Nicotine on Serum Cholesterol and Phospholipids; the Electrocardiographic Response to Ergonovine; and the Vascular Pathology of Cholesterol-fed Rabbits (C—P)

FREDERICK E. WHISKIN, M.D., C.M., *Director, Division of Health and Personality Equilibrium*, The Age Center of New England, Inc., Boston 16, Massachusetts

Pilot Study of the Smoking Habits of Age Center Members

J. EDWIN WOOD, M.D., *Professor of Medicine*, Medical College of Georgia, Augusta, Georgia

The Effect of Prolonged Inhalation of Tobacco Smoke and of Prolonged Abstinence from the Use of Tobacco on the Peripheral Vascular Response to Acute Inhalation of Tobacco Smoke in Man (C—P)

JOHN P. WYATT, M.D., *Professor of Pathology*, St. Louis University School of Medicine, St. Louis 4, Missouri

An Investigation Into the Nature of the Pigmentary Lesion in Centrilobular Emphysema